

SERVICE

INSTRUCTIONS

TAITO®

TAITO AMERICA CORPORATION

1256 Estes Avenue, Elk Grove Village, IL 60007

960026

• NAME OF PARTS (See Figures 1 and 2)

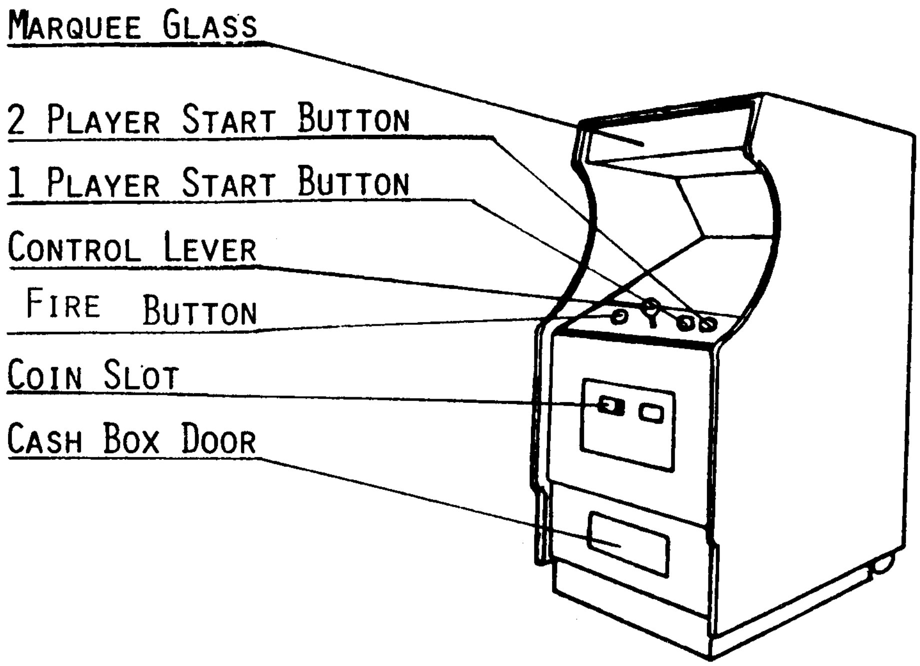


Figure 1

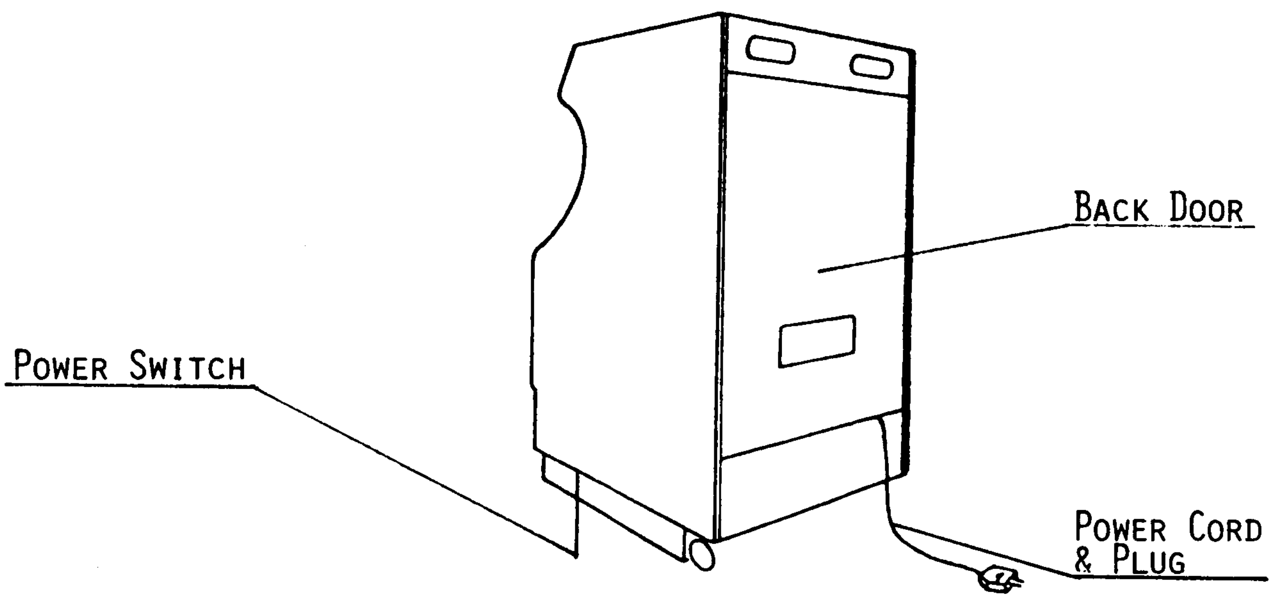


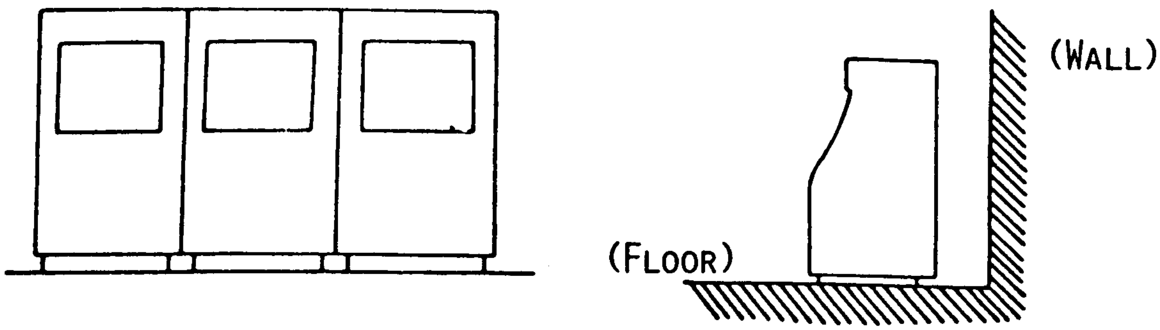
Figure 2

- TRANSPORTATION AND INSTALLATION:

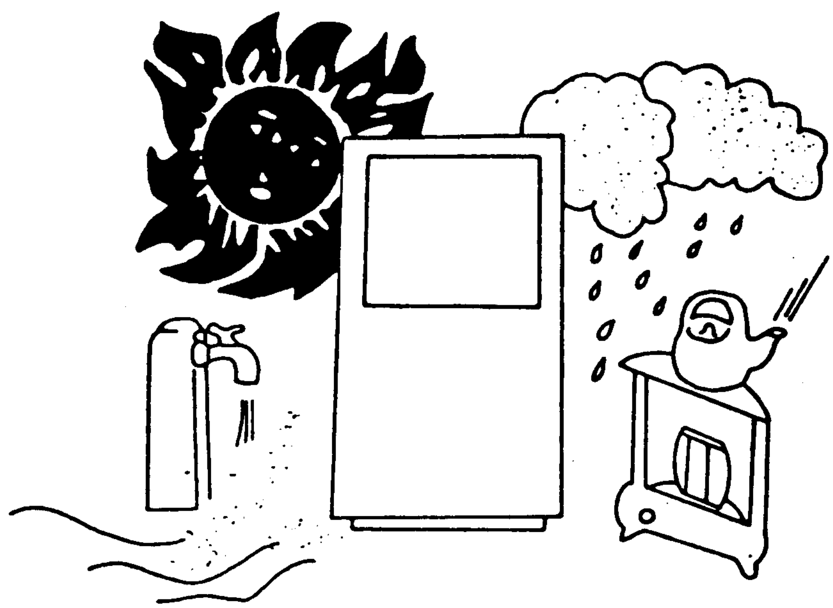
AVOID ROUGH HANDLING IN TRANSPORTATION; THE PICTURE TUBE IS FRAGILE.

TAITO "LUNAR RESCUE" IS FOR INDOOR USE.

INSTALL THE MACHINE ON FLAT-SURFACED FLOOR AND PROVIDE SUITABLE SPACE IN FRONT OF THE MACHINE.



DO NOT INSTALL THE MACHINE IN A LOCATION WITH EXPOSURE TO DIRECT SUNLIGHT OR EXCESSIVE HEAT.



ENSURE THAT ALL PCB CONNECTIONS ARE SECURE.

INSERT THE POWER PLUG INTO A PROPERLY GROUNDED OUTLET.

• CIRCUIT INFORMATION:

A SCRAMBLED PICTURE MAY APPEAR ON THE SCREEN WHEN THE MACHINE IS FIRST SWITCHED ON. THIS IS TYPICAL OF THE CPU CIRCUITRY, AND WILL CORRECT ITSELF AUTOMATICALLY WHEN THE POWER IS SWITCHED OFF AND ON.

TAITO "LUNAR RESCUE" USES A CPU AND THE LATEST SOLID-STATE CIRCUITRY FOR LONG LIFE, HOWEVER, AS WITH SOPHISTICATED ELECTRONIC EQUIPMENT, CERTAIN PRECAUTIONS MUST BE OBSERVED TO AVOID DAMAGE.

1. DO NOT ATTEMPT TO SERVICE WITH ORDINARY TESTING EQUIPMENT, SINCE THE INTERNAL VOLTAGE OF THE TESTING EQUIPMENT MAY CAUSE DAMAGE TO THE CIRCUITRY.
2. SERVICE SHOULD BE DONE BY A QUALIFIED TECHNICIAN.
3. TAITO AMERICA SERVICE DEPARTMENT CAN BE REACHED TOLLFREE OUTSIDE ILLINOIS AT: #800-323-0666, OR IN ILLINOIS: #312-981-1000.
4. NEVER CONNECT OR DISCONNECT ANY OF THE SOLID-STATE MODULES WHILE THE POWER IS ON.

• ROUTINE MAINTENANCE:

BECAUSE OF THE SOLID-STATE ELECTRONIC CIRCUITRY, THIS MACHINE SHOULD REQUIRE VERY LITTLE MAINTENANCE AND ONLY OCCASIONAL ADJUSTMENTS, HOWEVER, IT IS NECESSARY TO TAKE MEASURES TO INSURE THIS.

• PLAYING INSTRUCTIONS:

ONE OR TWO PLAYERS.

INSERT COIN(S), AND SELECT ONE OR TWO PLAYER GAME.

1 COIN - 1 PLAY ... 3 RESCUE SHIPS (ADJUSTABLE)

2 COINS - 2 PLAYS (1 PLAYER GAME)

OR 1 PLAY (2 PLAYER GAME)

- MOTHERSHIP, ASTEROIDS AND ASTRONAUTS WILL APPEAR ON THE SCREEN.
- PUSH FIRE BUTTON TO RELEASE RESCUESHIP FROM MOTHERSHIP TO RESCUE ASTRONAUTS.
- CONTROL THE RESCUESHIP BY MOVING CONTROL LEVER.
- DESCEND TO A LANDING PAD, MANEUVERING RESCUECRAFT TO AVOID ASTEROIDS AND STARS.
- THE RED BUTTON CONTROLS THE LANDING SPEED OF THE RESCUESHIP. (RETRO ROCKET).
- AFTER LANDING, RETURN TO MOTHER SHIP.
- IF RESCUE SHIP DOES NOT CLEAR ENTRANCE TO MOTHER SHIP, ASTRONAUT IS LOST.
- IN TWO PLAYER MODE, PLAY ALTERNATES BETWEEN THE TWO PLAYERS.

FUNCTIONAL DESCRIPTION OF GAME:

- AFTER DESCENDING TO LANDING PAD, SIX (6) TIMES IN A FRAME, ASTRONAUT-RESCUE POINTS AND REMAINING FUEL POINTS ARE ADDED TO YOUR SCORE.
- WHEN ALL FUEL IS CONSUMED, CONTROL BECOMES INEFFECTIVE.
- POINTS ARE SCORED WHEN FLYING SAUCERS ARE DESTROYED:

 **= 50 POINTS**

 **= 30 POINTS**

 **= 30 POINTS**

- RESCUE ALL SIX (6) ASTRONAUTS IN A FRAME FOR BONUS POINTS.
- ONE ADDITIONAL RESCUE SHIP WILL BE AWARDED WHEN SCORE REACHED 3,000 POINTS.
- GAME IS OVER WHEN ALL RESCUE SHIPS ARE DESTROYED.

HI SCORE NAME REGISTRATION:

THE HIGH SCORER'S NAME CAN BE REGISTERED ON THE SCREEN.

ANY UNWANTED WORDING CAN BE CANCELLED BY TURNING THE GAME OFF AT THE SERVICE SWITCH, AND THE HIGH SCORE WILL THEN BE CANCELLED.

METHOD OF REGISTRATION:

1. THE LETTERS ("A" - "Z"), "SPACE", "RUB", AND "END" WILL BE DISPLAYED ON THE SCREEN. BY MOVING THE CONTROL LEVER, MOVE THE UNDERLINE THROUGH THE ALPHABET ONE LETTER AT A TIME, SO THAT THE HIGH SCORER'S NAME CAN BE SPELLED.

2. A LETTER ABOVE THE UNDERLINE CAN BE REGISTERED ON THE SCREEN BY PUSHING THE FIRE BUTTON.

   "RUB": IF A WRONG LETTER HAS BEEN REGISTERED, MOVE THE UNDERLINE TO THE WORD "RUB", THEN PUSH THE FIRE BUTTON AND THE LETTER WILL BE CANCELLED.

   "END": TO FINISH THE HIGH SCORER'S NAME REGISTERATION MOVE THE UNDERLINE TO THE WORD "END" AND PUSH THE FIRE BUTTON.

3. THE HIGH SCORER'S NAME REGISTER MUST BE PERFORMED WITHIN ONE AND ONE HALF MINUTES. AFTER ONE AND ONE HALF MINUTES HAVE PASSED, THE REGISTRATION WILL BE AUTOMATICALLY ENDED. (IN TOTAL, TEN LETTERS CAN BE REGISTERED). SEE FIGURE -3-.

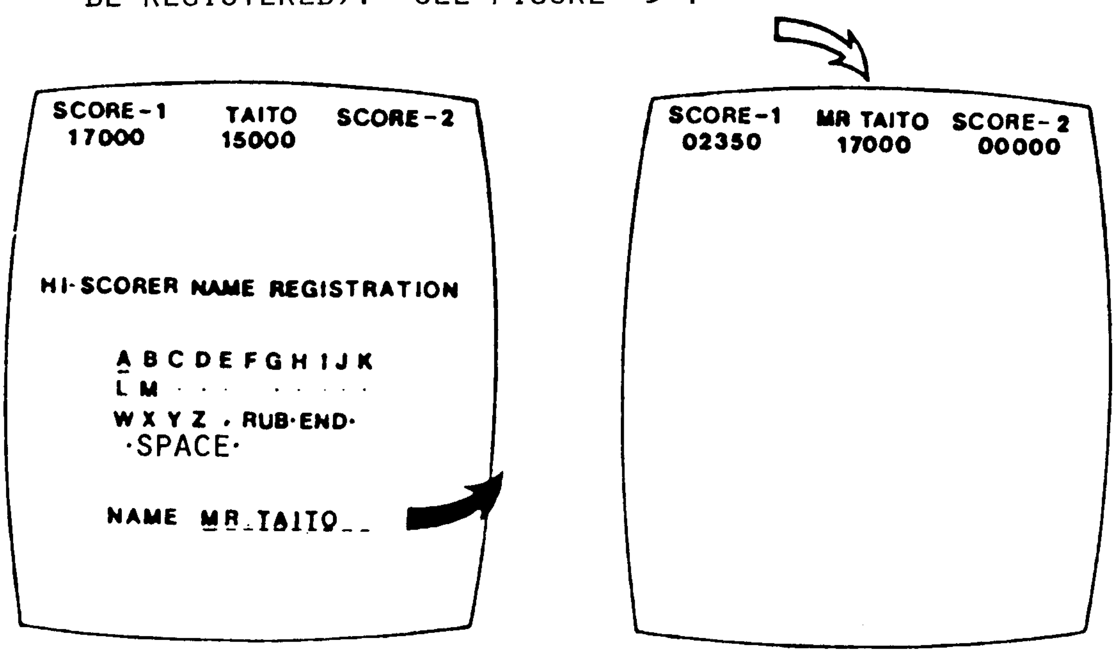


FIGURE -3-

• ADJUSTMENTS ON SWITCHING REGULATOR PC BOARD:

(SEE FIGURE -4-)

CAUTION: THE SUPPLY VOLTAGES SHOULD BE SET AT THE PROPER LIMITS. FAILURE TO DO SO MAY RESULT IN DESTRUCTION OF THE IC'S.

TO CHECK THE OUTPUT VOLTAGE, MEASURE THEM ON THE G CONNECTOR OR THE T CONNECTOR PINS.

(SEE THE ATTACHED WIRING DIAGRAM)

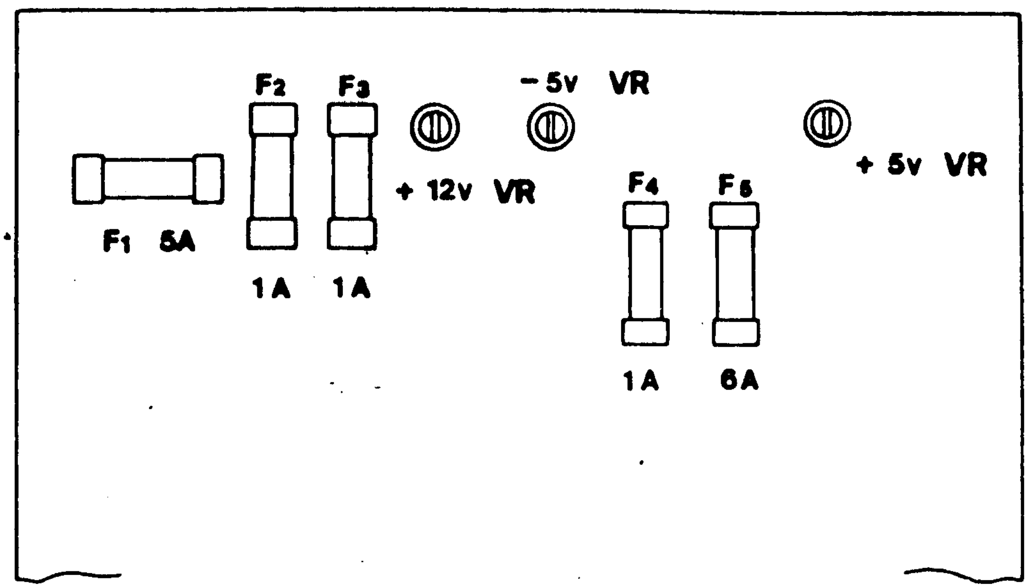


FIGURE -4-

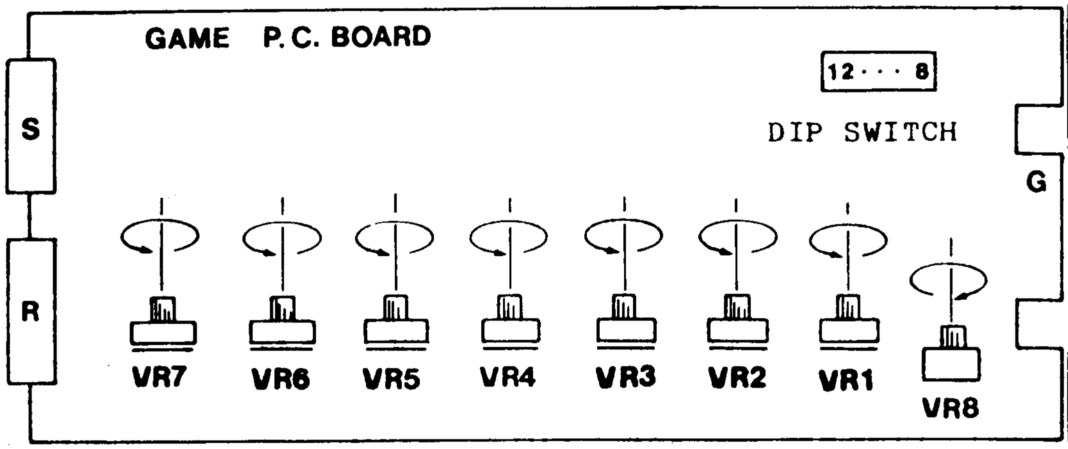
+5V VR ... POT FOR ADJUSTING +5V DC. (ADJUSTMENT RANGE: +4.5V TO +5.5V DC). SET APPROXIMATELY +5V.

-5V VR ... POT FOR ADJUSTING -5V DC. (ADJUSTMENT RANGE: -5.5V TO -4.5V DC). SET APPROXIMATELY -5V.

+12V VR... POT FOR ADJUSTING +12V DC. (ADJUSTMENT RANGE: +10.8V TO +13.2V DC). SET APPROXIMATELY +12V.

"LUNAR RESCUE"

Adjustments on Game P.C. Board:



TO DECREASE THE SOUND, TURN EACH POT TO THE DIRECTION AS SHOWN ABOVE.

*VR1... POT FOR ADJUSTING JET SOUNDS OF RESCUE SHIP WHEN DESCENDING.

*VR2... POT FOR ADJUSTING SHOOTING SOUNDS OF BEAM GUN.

*VR3... POT FOR ADJUSTING EXPLOSION SOUNDS OF RESCUE SHIP.

*VR4... POT FOR ADJUSTING EXPLOSION SOUNDS OF FLYING OBJECTS.

*VR5... POT FOR ADJUSTING BEEP SOUNDS WHEN PLAY TIME IS EXTENDED.

*VR6... POT FOR ADJUSTING BONUS MUSIC, ASTRONAUT FOOTSTEP SOUNDS, AND DOCKING SOUNDS.

*VR7... POT FOR ADJUSTING SHOOTING STAR SOUNDS AND RESCUE DESCENDING SOUNDS.

*VR8... POT FOR ADJUSTING TOTAL SOUNDS.

Selection for number of rescue ships (adjustable):

Number	3	4	5	6
SW1	ON	OFF	ON	OFF
SW2	ON	ON	OFF	OFF

NOTE: THE SWITCHES, SW3 - SW8 ARE FOR ADJUSTING SOLID-STATE MODULES. THESE SWITCHES ARE FOR THE FACTORY ADJUSTMENTS AND SHOULD BE SET ALWAYS AT "ON" POSITIONS.

• COLOR VIDEO MONITOR ADJUSTMENTS

THE VIDEO MONITOR IS PROPERLY ADJUSTED BEFORE SHIPPING. OCCASIONALLY ADJUSTMENTS ARE NECESSARY AND FOR THIS REASON, A COMPLETE TECHNICAL MANUAL FOR THE MONITOR IS INCLUDED WITH EACH GAME

ALL ADJUSTMENT CONTROL LOCATIONS ARE SHOWN ON PAGE SEVEN (7) OF THE MONITOR MANUAL.

VERTICAL HOLD:

ADJUST VERTICAL HOLD IF PICTURE ROLLS VERTICALLY.

HORIZONTAL HOLD:

ADJUST HORIZONTAL OSCILLATOR IF THE PICTURE IS WARPED OR BROKEN INTO DIAGONAL LINES (USE CAUTION WHEN ADJUSTING THIS CONTROL).

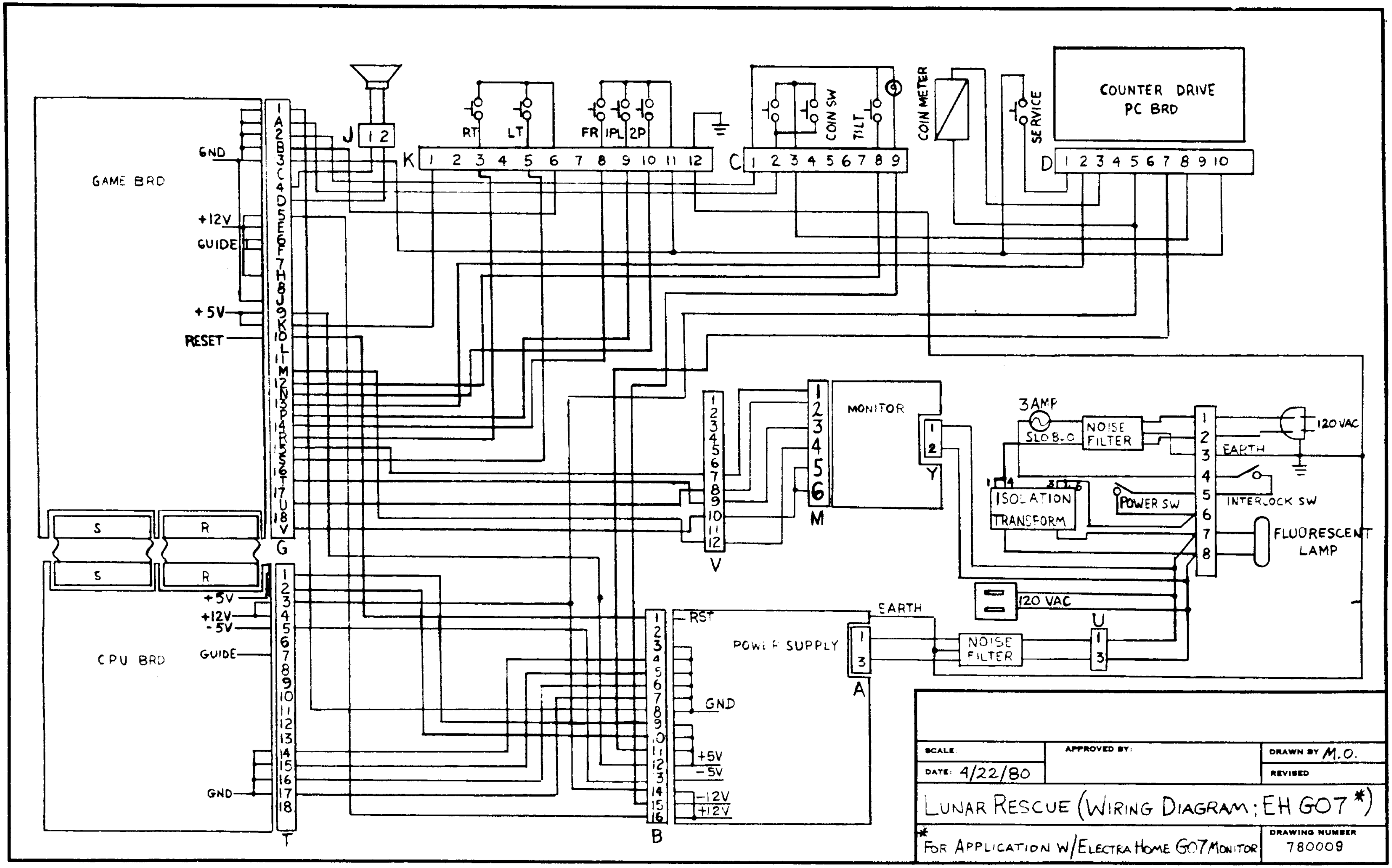
FOCUS:

ADJUST FOCUS IF PICTURE IS FUZZY.

RED, GREEN AND BLUE COLORS:

ADJUST RED SCREEN, GREEN SCREEN AND BLUE SCREEN CONTROLS.

FOR FURTHER ADJUSTMENTS AND INFORMATION, REFER TO THE MONITOR MANUAL.



11X17 PRINTED ON NO. 1000H CLEARPRINT



PARTS

CATALOG

TAITO®

TAITO AMERICA CORPORATION

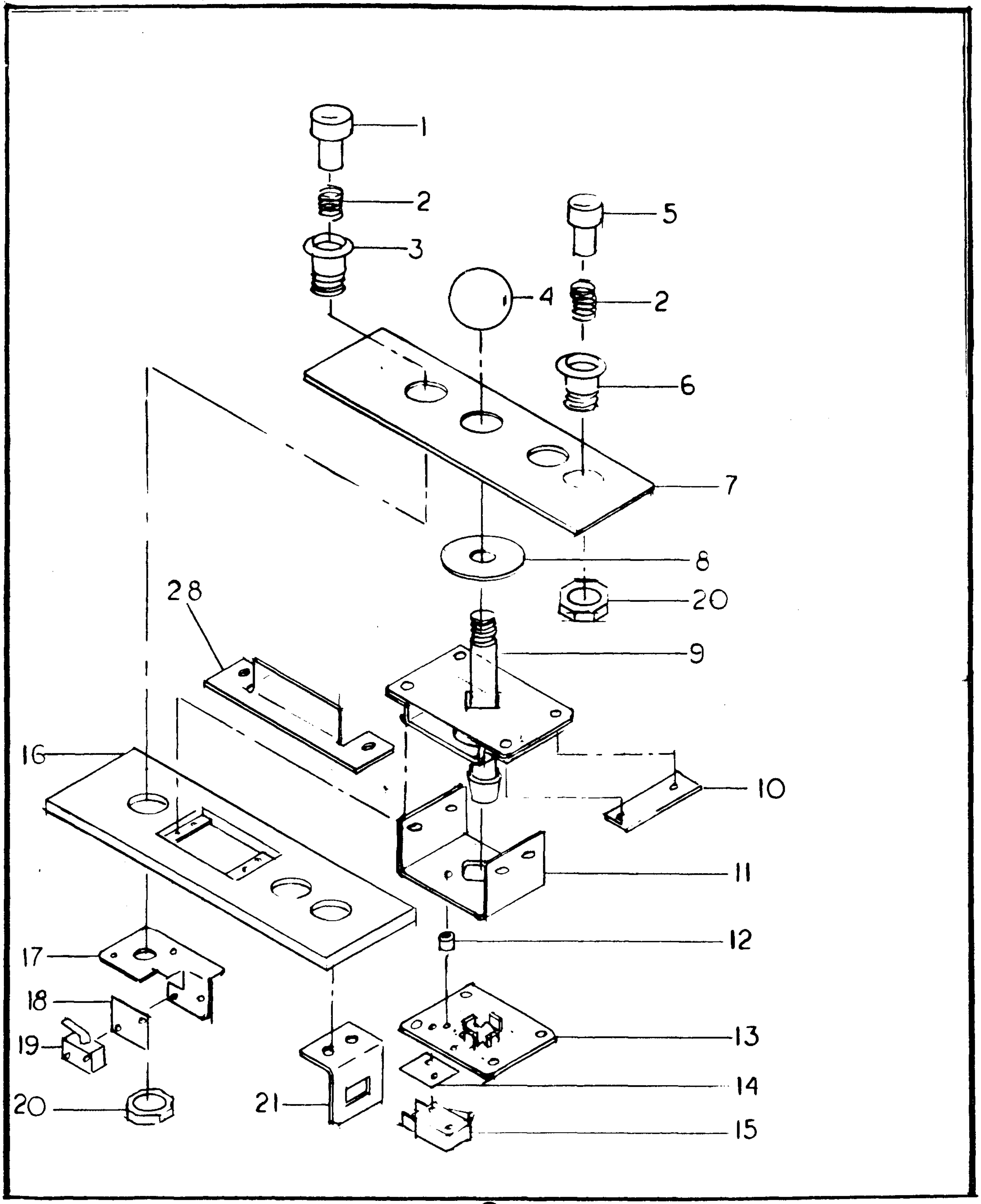
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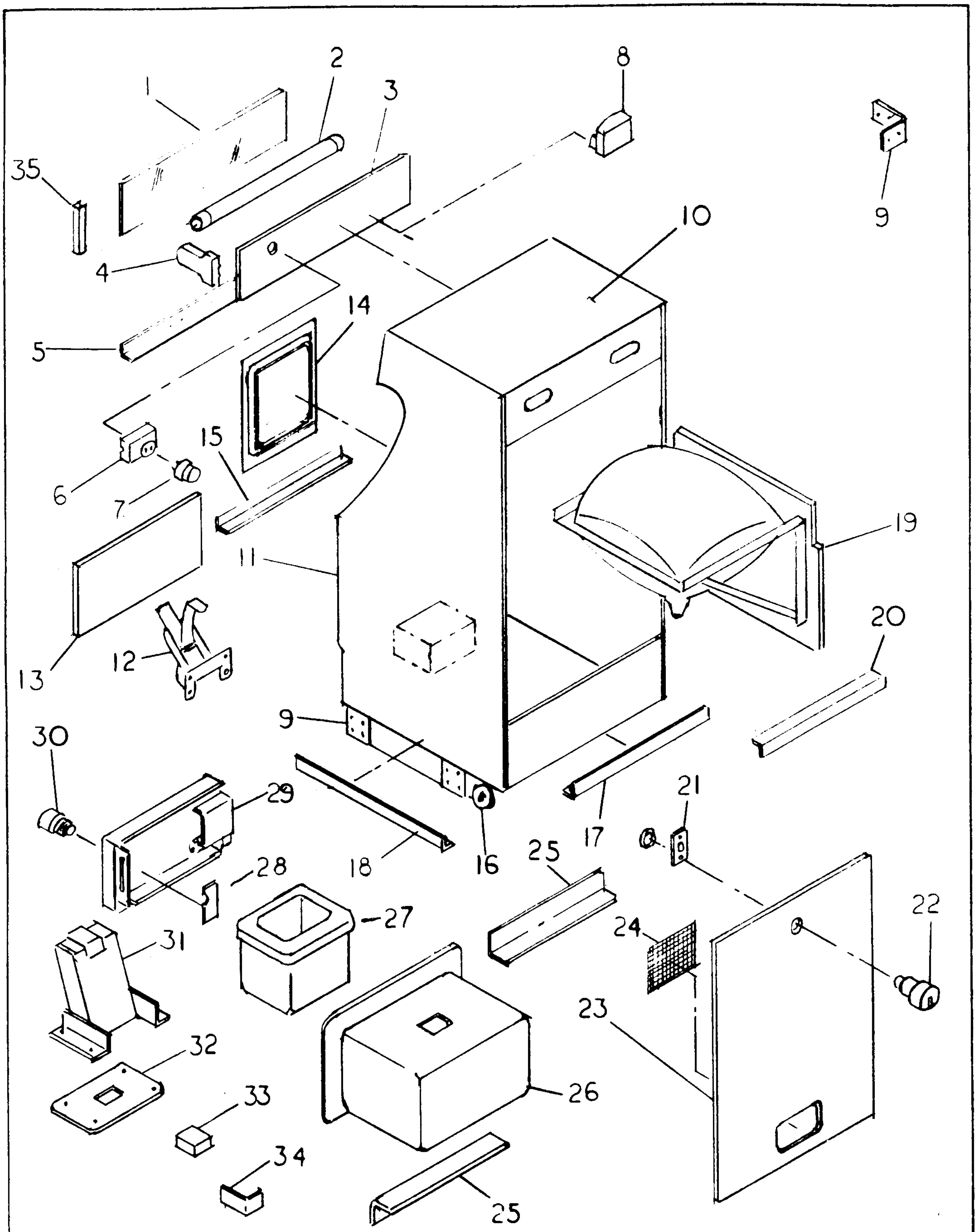
CONTROL PANEL ASSY.



CONTROL PANEL ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	400012	AA019533	PUSH BUTTON, RED
2.	370000	BP050001	SPRING
3.	400013	AA019534	PUSH BUTTON HOUSING, RED
4.	400026	BP090003	COLOR BALL, WHITE
5.	400014	TR090012	PUSH BUTTON, WHITE
6.	400015	TR090013	PUSH BUTTON HOUSING, WHITE
7.	500067		CONTROL PANEL, SCREENED ALUMINUM
8.	400030	RT090009	MASK, BLACK
9.	850001-D	RT030005	SWITCH BASE
10.	850001-B	RM030004	STOP PLATE
11.	850001-C	RT030006	BRACKET, SUPPORT
12.	850001-H	RT090010	BUSHING, SPACER
13.	850001-E		PLATE, SWITCH MOUNTING
14.	998520	AA019504	INSULATOR, TYPE V.
15.	020503	AA052532	SWITCH, MICRO
16.	140005		PANEL, WOOD DASH
17.	998682	BP030002	BRACKET, PUSHBUTTON MOUNTING
18.	998520	AA019504	INSULATOR, TYPE V.
19.	020501	AA052531	SWITCH, MICRO, VL-11L
20.	850002-B		NUT, M16THD
21.	390003	RM030003	STRIKE HOOK
22.	850001-A	RW020001	CONTROL SHAFT
23.	400029	RT090008	SPACER (A), METAL
24.	200000	RT080002	VIBRATIONPROOF RUBBER
25.	850001-F		STOP COLLAR
26.	400027	RT090001	SPACER (B) PLASTIC
27.	850001-G		COLLAR
28.	500063		BRACKET RESTRAINT

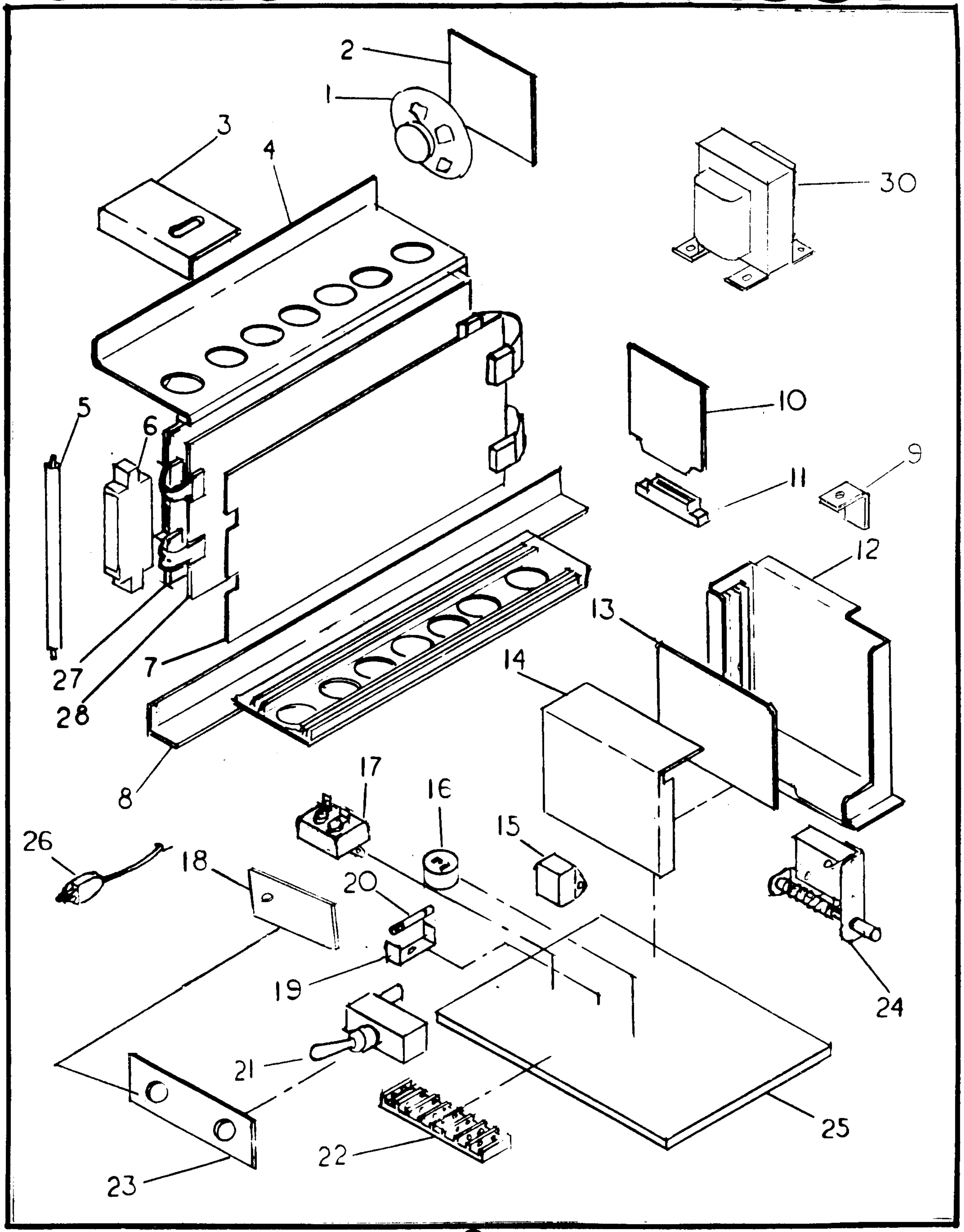
VIDEO & CABINET ASSY.



VIDEO AND CABINET ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	400033		SCREENED ACRYLIC MARQUEE PANEL
2.	112000	AA054711	FLUORESCENT TUBE, STD., 15 WATT.
3.	140006		FLUORESCENT LAMP PANEL.
4.	113000		LAMP SOCKET (HOLDER).
5.	500024		GLASS STOP BRACKET
6.	114001		STARTER SOCKET
7.	114000		STARTER
8.	010001		BALLAST TRANSFORMER
9.	500062	AA013584	"L" BRACKET
10.	860001		CABINET ASSEMBLY.
11.	400022		5/8" T MOLDING, BLACK, TEXTURED.
12.	390002		CLAMP FASTENER (BASSICK #HR-1)
13.	148005		COVER GLASS ASSEMBLY.
14.	400005		MONITOR SHROUD
15.	500022		GLASS RETAINER BRACKET
16.	520000		CASTERS
17.	400031-A		L MOLDING, BLACK, 22½"LONG.
18.	400031-B		L MOLDING, BLACK, 33-3/4" LONG.
19.	620001		MONITOR, G07-19" COLOR, ELECTROHOME
20.	500026-A		VIDEO MOUNTING BRACKET.
21.	600005-C		ANCHOR (PLATE).
22.	600005		LOCK(SERVICE) & KEY
23.	140004		CABINET BACK
24.	510003	EP030010	VENTILATOR SCREEN 5.9 X 9.8
25.	500011-C	AA013580	CASH BOX GUIDE
26.	500011-A	AA028507	CASH BOX
27.	500011-B	AA028506	CASH CASE
28.	600007	AA013583	LOCK PLATE
29.	500011-D	AA026512	CASH BOX DOOR
30.	600006	AA016545	LOCK(CASH BOX) & KEY
31.	500060	AA025510	COIN FUNNEL
32.	500061	AA013690	COIN FUNNEL PLATE
33.	130000	AA051717	COUNTER, 6V. DC
34.	500065	AA013608	COUNTER BRACKET
35.	400025		U CHANNEL, 1/8 X 1/4 X 7½", BLACK

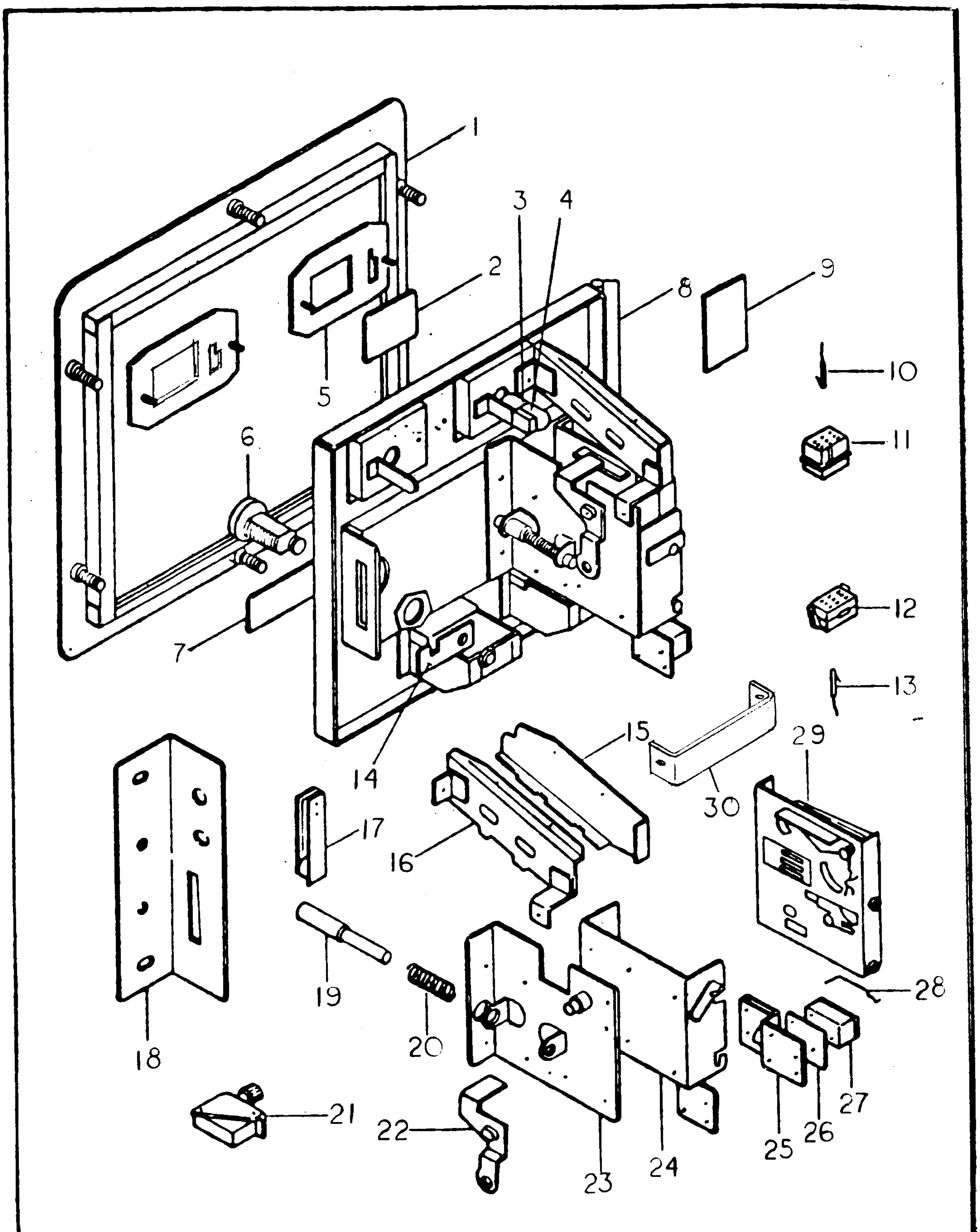
PRINTED CIRCUIT BOARD & REGULATOR ASSY.



PRINTED CIRCUIT BOARD AND REGULATOR ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	014000	AAT71011	SPEAKER, 8 OHM, 20W., 16CM.
2.	500015		SPEAKER GRILLE
3.	500057	CV030023	STOP BRACKET
4.	850007	WT090008	P.C. BOARD GUIDE "B"
5.	500059	TV020001	SHAFT P.C. CHASSIS
6.	100030	AA055949	18P. HOUSING CONNECTOR
7.	800026		GAME P.C. BOARD ASSEMBLY
8.	850006	AA019547	P.C. BOARD GUIDE "A"
9.	500035		"L" BRACKET
10.	800011	AAM50012	COUNTER DRIVE CREDIT BOARD
11.	100028	AA055720	CONNECTOR, EDGE, 10P.
12.	998702	AA013613	SHIELD BOX
13.	800010	AAM60009	SWITCHING REGULATOR ASSEMBLY
14.	998703	AA013614	SHIELD COVER
15.	998962	AAT61017	NOISE FILTER, ZMB 2206-02
16.	210000		SERVICE OUTLET
17.	019500		POWER LINE FILTER
18.	199007		INSULATOR
19.	171000		FUSE HOLDER
20.	170005		FUSE, 3AMP, 3AG, 250V., SLO-BLO.
21.	021500		TOGGLE SWITCH
22.	100027		BARRIER STRIP - 8 POSITION
23.	500025		TOGGLE SWITCH BRACKET (POWER SWITCH)
24.	024000		INTERLOCK SWITCH
25.	140011		POWER BOARD MOUNTING
26.	840002		LINE CORD ASSEMBLY
27.	800024	RTN00004	CPU P.C. BOARD ASSEMBLY "A"
28.	800025	RTN00005	CPU P.C. BOARD ASSEMBLY "B"
30.	010002		ISOLATION TRANSFORMER

COIN MECHANISM AND FRONT DOOR ASSY.



COIN MECHANISM AND FRONT DOOR ASSEMBLY:

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	500010	AA026510	DOOR FRAME
2.	500021-A	AA029512	PRICE CARD - U.S. 25¢
3.	110000	AA054704	PILOT LAMP, 12V., 150MA
4.	113001	AA055698	VINYL SOCKET
5.	500021-B		COIN ENTRY PLATE FOR 25¢
6.	500021-C	AA016558	SERVICE LOCK AND KEY NO. 7900
7.	120017		NAME TAG, TAITO
8.	500009	AA026511	COIN REJECTOR DOOR
9.	500021-E	AA019522	COVER PLATE
10.	104000	AA055789	MATE-N-LOC PIN A
11.	103007	AA055581	MATE-N-LOC HOUSING, 9P
12.	103008	AA055582	MATE-N-LOC HOUSING, 9P
13.	104001	AA055790	MATE-N-LOC PIN B
14.	500021-F	AA013578	LOCK PLATE
15.	500021-G	AA025508	COIN GUIDE (B)
16.	500021-H	AA025507	COIN GUIDE (A)
17.	500021-J	AA068717	TILT SWITCH
18.	500058	AA013577	LOCK GUARD
19.	500021-K	AA027504	CANCEL ROD
20.	500021-L	AA015504	SPRING CANCEL HOLDER
21.	020501	AA052531	SWITCH, SERVICE
22.	500021-M	AA013557	CANCEL LEVER
23.	500021-N	AA013554	REJECTOR BRACKET
24.	500021-P	AA023501	REJECTOR HOLDER
25.	500054		COIN GUIDE
26.	199005	AA019502	INSULATOR
27.	020502	AA052512	SWITCH, MICRO
28.	370002	AA053501	ACTUATOR
29.	540000		REJECTOR
30.	500021-R		CANCEL LEVER CONNECTOR